

The NBC Detectives

Story and Photos by Al Vogel

DUGWAY Proving Ground, about 80 miles southwest of Salt Lake City, Utah, is the home of the U.S. Army Developmental Test Command's West Desert Test Center, a major test site for the U.S. Army Test and Evaluation Command.

Its remoteness and carefully controlled laboratory and test facilities enable the Army to safely test nuclear, biological and chemical defense systems and conduct related training for the U.S. military, other government agencies and America's allies.

More than 70 soldiers and scientists from 14 European countries recently met at the desert site for a NATO exercise meant to demonstrate how the respective countries collect samples of biological agents in the field, and to share their techniques.

Because the outdoor use of chemical and biological agents has been banned by international treaty for decades, simulants — benign substances or safe microbes with characteristics similar to various agents — were used in the training.

Six NATO countries — including the United States, Great Britain, Germany, Italy, the Netherlands and Norway — sent teams to the four-day Sampling, Identification of Biological Agents exercise. Austria, Denmark, Finland, France, Poland, Spain, Sweden and Switzerland provided umpires and observers.

Other representatives from countries

in the Partnership for Peace program, created by NATO in 1994 to promote bilateral cooperation between NATO and individual European countries, also participated.

Most of the teams shipped their equipment to Dugway and then flew in by commercial aircraft, but Britain's Royal Air Force team flew into Salt Lake City International Airport on two RAF Hercules cargo aircraft, complete with vehicles, including a six-wheeled all-terrain vehicle.

Two sites, 13 miles apart, were "contaminated" with simulants before the arrival of the sampling teams. To make the exercise as realistic as possible, teams responded from a staging area in the remote desert.

In a fictitious scenario, the country of "Redland" (in Idaho) invaded "Goldland" (in Utah) from the north, occupying about two-thirds of Goldland's territory and producing biological agents near Goldland's airfield.

After Redland forces withdrew from the Dugway sector, the NATO joint-forces commander ordered the sampling and identification of biological agents.

Dr. Bruce Harper, chief of the West Desert Test Center's biotechnology branch, said each team was given the Global Positioning System coordinates of the two sites suspected of being "contaminated." Both sites consisted of a mock village of plywood buildings and old vehicles.

After determining locations by map coordinates, each team drove to respective sites. This was no small task; at 1,315 square miles, Dugway is larger than the European countries of Luxembourg and Liechtenstein combined.



Wearing his country's distinctively patterned protective suit, an Italian soldier takes a sample for later analysis in a field lab.

Al Vogel is a writer and photographer for Dugway Proving Ground's West Desert Test Center.



(Above) A U.S. soldier takes a water sample from a "pond" constructed of sheet plastic.

(Right) German troops used a box suspended from the wearer's uniform to hold sampling supplies. This provided easy access to swabs, water bottles and other items.



"They showed expertise in navigation in totally unfamiliar territory," said the test center's Danny Szarek, who directed the SIBA test. "I was impressed with how easily they found the sites."

Teams then took water samples from ponds that had been constructed for the exercise. Three of the six sampling teams spent a day at one site before moving on to the next.

Participants from outside the United States were especially impressed with the land area of the proving ground and their subsequent freedom of movement. One team member said his team couldn't move more than a half mile from their staging area to the mock contamination site at their home post because it's so small. At DPG, they drove more than 12 miles from the staging area to either "contamination" site.

Lt. Col. Jack Kohl of the German army's NBC Defense School at Sonthofen said that in Germany there is so much public opinion against bioweapons that the public strongly opposes even mock training by the military.

During SIBA, each of the teams established a field camp some distance from the site of suspected biological contamination and set up communication and decontamination lines.

Donning full protective clothing and gas masks, the sampling teams

walked to the site, where they used swabs, bottles and plastic bags to collect samples. After each sample was taken, the sample containers and the sampler's gloved hands were given a quick decontamination with a biocide.

Teams returned to the field post, where their compatriots in full protective clothing and equipment decontaminated them and gave the sample containers a second decontamination.

The samples were then forwarded to the distant staging area, where technicians from the Army's Medical Research and Development command at Fort Detrick, Md., tested the samples in a field lab for the presence of the simulants. In an after-action review, teams learned about the findings.

RAF Wing Commander Chris Gorman said the greatest benefit of the SIBA exercise was the opportunity it afforded him to work with military personnel from other nations.



Members of the Royal Air Force don protective clothing during the Dugway field trials. There is scarce room in Europe for the sort of large-scale exercise conducted in Utah.



German soldiers communicate with their field station using radios sealed inside plastic bags. The plastic helps prevent damage to the radios during decontamination.



Dutch soldiers seal their masks to their protective suits with tape, a step that requires teamwork. The Netherlands was one of 14 countries involved in the Dugway exercise.

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Capt. Romeo Tomassetti of the Italian army's 7th NBC Defense Regiment was equally impressed.

"It's been a great experience for us," he said. "This has been the first time that an Italian SIBA team has trained in such a realistic way. It's also been a great experience, because we learned from other teams."

The Italian regiment has provided NBC support to Italian troops stationed in Kosovo, Bosnia, Afghanistan, Macedonia and Albania, but this was its first trip to the United States.

"And we will improve our procedures because of what we learned here," said Capt. Giuseppe Damato, also of the Italian team.

Poland's Col. Marek Malecki works for the Polish Minister of Defense and with NATO, which Poland joined three years ago. He is chairman of Sampling and Identification of Biological, Chemical and Radiological Agents for NATO.

"The main goal of this exercise was to validate, under field conditions, procedures of our NATO-approved SIBCRA handbook," Malecki said. "This exercise validated the knowledge and experience of team members and their equipment, and specific team procedures."

Dr. John-Erik Stig Hansen of Denmark, one of the umpires, is head of the National Center for Bio Defense in Copenhagen.

"That you have provided a forum where we can learn about this really shows responsibility on the part of the United States," said Hansen. "Although there are many solutions, the problems are the same. Because people are exchanging ideas, we'll eventually adopt a best solution."

Dr. Jens Joergen E. Christensen of the State Serum Institute in Copenhagen said a major benefit of the SIBA exercise is the creation of ties between the sampling teams.

"From a microbiologist's point of view, it's very important to create networks," Christensen said. "In a critical situation, you can only rely on people you know personally, and that's what we have achieved here."

Army LTC Mike Urban, chief of the NBC Cell at Supreme Headquarters, Allied Powers, Europe, in Brussels, Belgium, said: "That's particularly relevant, as NATO has invoked Article 5, meaning an attack against one is an attack against all." □